

E. The Measurement of the Cost of Capital Input in the Commission's New Productivity Studies is Inconsistent with the Economic Definition of Competitive Cost of Capital and Must Not Be Utilized.

One of the most significant changes proposed in the new staff studies is its methodology for measuring the cost of capital input. This poorly conceived adjustment, which was not proposed in the 1997 performance review, completely ignores years of actual cost of capital determinations in favor of a proxy: shifts in Moody's Baa bonds. As indicated by both Professor Gollop and Dr. Taylor, this proxy does serve the Commission's objective to increase the X Factor by including a lower "competitive" cost of capital input.

Dr. James Vander Weide of Duke University reviewed the Commission's methodology. His findings are reported in Attachment 5. He concludes that the proposed methodology is inconsistent with the economic definition of the competitive market cost of capital because it only considers changes in the cost of debt. In order to comply with basic economic theory, changes in the cost of capital must also consider changes in the cost of equity and the market value percentages of debt and equity in a competitive firm's capital structure. The staff methodology fails to consider all the elements that constitute an appropriate estimate of the competitive market cost of capital.

Dr. Vander Weide characterizes the methodology as a "short-cut approach" that is based on faulty assumptions. It is utilized to produce another upward bias in the X-Factor. By focusing solely on changes in the cost of debt, the Commission is assuming that the cost of equity moves up and down by the same amount as the cost of debt and that the competitive capital market structure remains constant at its 1991 level. Dr. Vander Weide conducts three studies, an analysis of the cost of equity for the S&P 500 from 1991 to 1999, a regression analysis of the relationship between DCF cost of equity for the S&P 500 and the yield on

Moody's Baa-rated bonds from 1991 to 1999 and an analysis of the changes in the market value capital structures of both the S&P Industrials and the BOCs from 1991 to 1999 to demonstrate that these assumptions are false and do not reflect market experience. Contrary to the staff's assumptions, the cost of equity has not declined since 1991 and the percentage of equity in the capital structure has increased significantly. These studies indicate that changes in the market cost of equity cannot be directly linked to changes in the cost of debt. In fact while the cost of debt declined significantly over the staff's study period, the cost of equity remained constant and the percentage of equity in the market value capital structure of competitive firms increased significantly. Dr. Vander Weide also explains that the staff methodology incorrectly links changes in the cost of equity to changes in the yield on Moody's Baa-rated bonds.

Using a market based definition that is consistent with the definition of competitive cost of capital would dramatically change the cost of capital inputs in the proposed studies by increasing the cost of capital values used in the staff studies and reducing the staff's estimates of the X-Factor. There is no rational justification for the short cut approach taken by the staff other than to produce a higher X-Factor. The staff's cost of capital methodology must be rejected.

F. The 1997 Model as Updated by USTA in 1998 Should be Adopted by the Commission for the Historical Period Impacted by the Court Remand and Either the 1997 Model Updated by USTA in 1999 or the USTA TFP Model Should be Adopted for the Future.

As explained above, both the 1999 staff study and the Imputed X staff study violate basic economic principles and, in some cases, even repeat the same result-oriented approach to which the Court objected. The imputed X staff study in fact eviscerates price cap regulation and reimposes traditional cost plus regulation. Neither of these options is supportable. The 1997 TFP model, as updated by USTA in 1998, addresses the concerns of the Court and should be used to set the X for the historical period impacted by the Court remand. On a going-forward

basis, the 1997 TFP model, as updated by USTA in 1999, or the USTA TFPRP produce consistent results, reflect basic economic principles and will provide a measure of certainty and stability that has not been evident in the Commission's administration of price cap regulation.

The Court of Appeals reversed and remanded the Commission's choice of a 6 percent productivity factor and its decision to retain the 0.5 percent CPD. The Court cited three deficiencies in the Commission's rationale regarding the historical component of the X-Factor. The Court found that in selecting a point within the range of reasonableness, the Commission erred in placing less weight on the two lowest averages, given the fact that the X-Factor represents the difference between LEC and economy-wide productivity growth. The Court also found that the Commission's reliance on an upward trend and its unexplained assumption that the trend would continue for the immediate future was erroneous. The Court examined the data in the record and found that the alleged trend was, in reality, part of a cyclical pattern and that there was no evidence that the components of the X-Factor followed a trend. Finally, the Court noted that the uses of the AT&T estimates appear irrational.

The only reasonable opportunity proposed by the Commission to address these issues as ordered by the Court, is through the use of the 1997 TFP model, without the manipulation questioned by the Court for the historical period. USTA recommends that the Commission apply the 1997 TFP model consistent with the Court's decision by giving each average equal weight, acknowledging that the upward trend does not exist and ignoring the AT&T estimates for the period from July 1, 1997 through at least July 1, 2000. In response to the Commission's October 5, 1998 request that parties update the record, USTA replicated the 1997 TFP model and updated

the data through 1997 in its comments in CC Docket No. 96-262.²¹ The results are included herein at Attachment 6.

Utilizing the 1997 model exactly as the staff designed it and adding data from 1996 and 1997, the X-Factor for 1996 and 1997 were 2.1 percent and 4.1 percent respectively. Professor Gollop showed that the results are completely consistent with the entire 1985 to 1995 ten-year average. In fact, using the 1997 TFP model, there is no period in which the X-Factor equals 6.5 percent. The Court could see that the Commission was forced to arbitrarily manipulate the model in order to produce an X-Factor of 6.5 percent. The 1997 TFP model if applied as originally designed by the staff, since 1991, when price cap regulation was implemented, produces an average X-Factor of 4.5 percent.

Averaging Period	USTA Update of 1997 Model (1996 and 1997)
1991 – 1995	5.0 %
1992 – 1996	4.2 %
1993 – 1997	4.4 %

USTA also updated its TFPRP model with data from 1996 and 1997.²² That update, as verified by Professor Gollop, based on the most recent five year moving average, which balances recent performance with the desirability of a stable X-Factor showed the following results:

Averaging Period	USTA TFPRP (1996 and 1997)
1991 – 1995	2.7 %
1992 – 1996	3.2 %
1993 – 1997	3.0 %

²¹ USTA Comments, CC Docket Nos. 96-262, 94-1, 97-250, RM 9210, October 26, 1998, Attachment D.

²² The USTA TFPRP model measures the growth in the demand actually experienced (output) minus the growth in resources actually used (inputs). The USTA TFPRP conforms to Commission standards and relies on data that are publicly available and verifiable.

Clearly, the 6.5 percent X-Factor cannot be supported for the historical period.

In that proceeding, USTA also demonstrated that price cap regulation has worked to reduce access charges since 1990.²³ USTA projected that rates will continue to decline each year, to approximately \$0.01 per minute of use by 2003. Flat rate charges will begin to decline this year. While some companies may seek to voluntarily accelerate that decline in access charges through the CALLS proposal, which would also make it unnecessary for the Commission to represcribe the X-Factor, the data demonstrates that increases in the X-Factor are not required to decrease access prices.

On a going forward basis, it would be prudent for the Commission to update the 1997 model to ensure that it is based on the most current data available. Professor Gollop performed such an update and USTA provided his results to the Commission.²⁴ Using 1998 data, the 1997 model produces an X-Factor of 3.03 percent. The average result is:

Averaging Period	USTA Update of 1997 Model (1998)
1991 – 1998	4.12%
1994 – 1998	4.06%

The Commission requests comment on an appropriate period or measurement that could be utilized as a reasonable indication of productivity growth. The Court clearly rejected the Commission's misguided reliance on a trend as well as its arbitrary exclusion of two estimates. It is a fact that productivity growth for the U.S. economy and its individual sectors will exhibit variability.²⁵ As the Court recognized, this variability should be accounted for by the fact that the X-Factor represents the difference between the U.S. economy and LEC performance. That is the reason that USTA proposed updating the X-Factor using a five year moving average of LEC

²³ *Id.* at Attachment B.

²⁴ USTA Ex Parte Letter, CC Docket No. 94-1, September 10, 1999. *See*, Attachment 4 herein.

TFP growth with a two year lag.²⁶ The five year period with a two year lag would have more closely reflected the competitive markets that price cap regulation is supposed to replicate. It would have provided much-needed certainty. An examination of the averages provided above demonstrate the consistency which the five-year period produces under a TFP approach. The moving average resolves the recontracting problem described above by eliminating the uncertainty and the administrative burdens of the current performance review process. The moving average automatically ensures that customers share in any productivity gains realized by the price cap LECs. And, because the moving average will rise if, in fact, productivity growth increases, there is no need for the CPD.²⁷ The five-year moving average is consistent with USTA's TFPRP model, but could be incorporated into the Commission's 1997 TFP model.

The staff studies included in the FNPRM are so flawed that there is no period or measurement indicator to justify the adoption of either one.

III. THE CONSUMER PRODUCTIVITY DIVIDEND SHOULD BE ELIMINATED.

As Dr. Taylor explains in Attachment 1, the Commission included a consumer productivity dividend (CPD) in 1991 to ensure that the first productivity gains of price cap regulation flow to consumers. After ten years, it has more than served its purpose and should be eliminated. In fact, it makes no sense to include the CPD now since adding the CPD to an historical X factor measured over a period that includes price cap regulation double counts productivity gains.

²⁵ See, Jorgenson, Gollop and Fraumeni, *Productivity and U.S. Economic Growth*.

²⁶ USTA Ex Parte Letter, CC Docket No. 94-1, January 20, 1995. For example, the 1994 – 1998 average would be applied in July, 2000.

²⁷ In the alternative, USTA proposed that the Commission phase down the CPD over a two-year period as the rolling average is established.

In 1996, the Court acknowledged that the Commission provided no specific reason for retaining the CPD or for setting the figure at 0.5 percent.²⁸ The Court excused the Commission's failure at that time reasoning that the Commission was only preserving, on an interim basis, its original methodology for estimating the X-Factor.

In 1997, however, the Commission attempted to devise a new rationale to support the CPD. It decided that the CPD should be retained to offset the elimination of sharing. The Court criticized this decision because the Commission was unable to tie the CPD to a specific productivity increase that could be expected from the elimination of sharing. Again, continuing to include a CPD effectively double-counts the benefits of the elimination of sharing and defeats the original purpose of eliminating sharing in the first place. Consumers have already partly benefited from the increasing efficiency resulting from the elimination of sharing.

Further, the Court's opinion leaves no room for the Commission to attempt to justify any reinitialization of the CPD. The no-sharing rule was not even created until May 1997 and was not implemented until July 1997. The price cap LECs cannot respond to an incentive before it exists. The CPD cannot be justified and should simply be eliminated.

IV. THE COMMISSION SHOULD NOT INCLUDE ANY GROWTH FACTORS IN THE PRICE CAP FORMULA AND SHOULD RECOGNIZE AND INCORPORATE CHANGES THAT WILL DECREASE THE X FACTOR SUCH AS REPLACING PER MINUTE CHARGES WITH FLAT RATE CHARGES.

In its FNPRM released August 27, 1999, the Commission proposed to include a "q" factor in the traffic-sensitive price cap index (PCI) formula if it adopted a capacity-based local switching rate structure.²⁹ The Commission also proposed to increase the "g/2" factor in the

²⁸ *Bell Atlantic v. FCC*, 79 F.3d 1195 (D.C. Cir. 1996).

²⁹ Access Charge Reform, Fifth Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-262, FCC 99-206 (rel. Aug. 27, 1999).

common line formula. As USTA explained in its comments, both proposals are ill advised and unnecessary.³⁰

Given the fact that every carrier opposed the adoption of a capacity-based local switching rate structure, the “q” factor should be rejected as well. The “q” factor proposal is based on an unsupported assumption that minutes have grown faster than trunks. The Commission provided no empirical data to support its assumption. This is another example of the Commission’s attempts to “recontract” the price cap plan because of a perception that LECs earnings were too high. If adopted, it will destroy the incentives of price cap regulation as well as its future credibility. In an attachment to USTA’s comments submitted October 29, 1999 and as reiterated above, Dr. Taylor has explained that it is economically incorrect to conclude that price cap LECs are earning above-normal profits based on the use of accounting data on an interstate only basis. Dr. Taylor also explained that there is no reasonable basis to conclude that price cap LECs enjoyed a windfall as a result of alleged errors in the traffic sensitive rate structure because neither the level nor the growth in price cap LEC interstate or intrastate earnings is out of the range observed in unregulated competitive markets. Professor Gollop confirmed Dr. Taylor’s analysis in USTA’s reply comments submitted November 29, 1999. Professor Gollop exposed the alleged windfall as a “phantom”, disputed the inferences that the X-Factor is insensitive to growth in local switching minutes and to changes in LEC capacity utilization. Further, both Dr. Taylor and Professor Gollop explained that the X-Factor already reflects the recovery of fixed costs on a minute of use basis during the historical period as well as the future. In fact, they agreed that the “q” factor would necessarily result in double counting productivity gains.

³⁰ It is surprising that the Commission seeks to inject these proposals in this proceeding, given that the rationale used in the local switching proceeding for adopting these factors was to better match changing local switching revenues to NTS recovery of costs, yet here the 1999 staff study proposes to raise the X-Factor by using local DEMs as a measure of outputs even though local DEMs bear no relation to revenues.

However, if the Commission persists in this ill-advised course of action, the impact of adopting the “q” factor will be to lower the X-Factor. Since productivity growth equals output growth minus input growth, changing a component of output to a slower growing measure lowers measured productivity growth. Professor Gollop demonstrated that the 1998 X-Factor would be reduced from 3.03 percent to 1.74 percent and that the most recent five year average would decrease from 4.06 percent to 3.20 percent.

Dr. Taylor also pointed out that the “g/2” factor should already have been eliminated under a TFP model since the TFP model already incorporates any such effect. Since most price cap LECs have already eliminated the CCL charge, the “g/2 is no longer relevant. Finally, Dr. Taylor explained that it is incorrect to attribute all growth to the IXCs. Increasing long distance consumption is due to decreasing access prices. There is no justification for the “g/2”. It should be completely eliminated.

USTA has shown that the reason that productivity growth is slowing down is based on changing market fundamentals, including the consequences of access reform and the end of the downward trend in LEC employment during the early price cap years.³¹ Professor Gollop estimated that the declines in LEC labor employment that were a major contributor to the increase in measured LEC productivity through 1995 slowed in 1996 and ended in 1997. This trend reversal caused the X-Factors in 1996 and 1997 to decrease by 0.43 and 1.04 percentage points respectively from what they otherwise would have been. The past LEC downsizing will not help boost productivity in the future. The rate restructuring adopted by the Commission under access reform reduced the X-Factor by 0.1 to 0.4 for 1998 and later years. These impacts should be reflected in the X-Factor.


³¹ USTA Reply Comments, CC Docket No. 96-262, November 9, 1998 at Attachment D and USTA Ex Parte Filing, CC Docket Nos. 96-262 and 94-1, April 14, 1999.

V. CONCLUSION.

The staff studies are unnecessary given the Court's decision and are so fatally flawed as to defy reason. They represent a dramatic change in the price cap "contract" which undermines current and any future incentives, which are precisely what make price cap regulation beneficial. The Court decision demands that the Commission adopt the 1997 TFP model as presented by USTA for the period covered by the remand and either continue to use that model as updated by USTA or the USTA TFPRP on a going forward basis. At a time when the Commission is required by law to transition to competition, the Commission must not penalize price cap LECs for their efficiency gains that replicate the competitive market.

Respectfully submitted,

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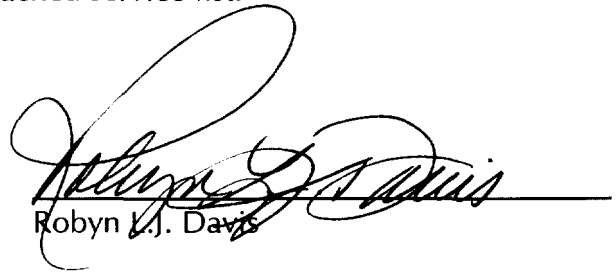
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